

IN THE CLAIMS

1. (Withdrawn) An isolated essentially mammalian positive-sense single stranded RNA virus (EMCR-CoV) comprising the sequence of figure 1 or homologues thereof.
2. (Withdrawn) An isolated positive-sense single stranded RNA virus (EMCR-CoV) belonging to the Coronaviruses and identifiable as phylogenetically corresponding thereto by determining a nucleic acid sequence of said virus and testing it in phylogenetic tree analyses wherein maximum likelihood trees are generated using 100 bootstraps and 3 jumbles and finding it to be more closely phylogenetically corresponding to a virus isolate having the sequences as depicted in figure 1 than it is corresponding to a virus isolate of PEDV (porcine epidemic diarrhea virus), HCoV-229E (human coronavirus 229E), PRCoV (porcine respiratory coronavirus), TGEV (transmissible gastroenteritis virus), CaCoV (Canine coronavirus) and FeCoV (feline coronavirus).
3. (Withdrawn) A virus according to claim 1 wherein said nucleic acid sequence comprises an open reading frame (ORF) encoding a viral protein of said virus.
4. (Withdrawn) A virus according to claim 3 wherein said open reading frame is selected from the group of ORFs encoding the viral replicase, nuclear capsid protein, matrix protein and the spike protein.
5. (Withdrawn) A virus according to claim 1 isolatable from a human with atypical

pneumonia.

6. (Withdrawn) An isolated or recombinant nucleic acid or EMCR-CoV virus-specific functional fragment thereof obtainable from a virus according to claims 1.

7. (Withdrawn) A vector comprising a nucleic acid according to claim 6.

8. (Withdrawn) A host cell comprising a nucleic acid according to claim 6.

9. (Withdrawn) An isolated or recombinant proteinaceous molecule or EMCR-CoV virus-specific functional fragment thereof encoded by a nucleic acid according to claim 6.

10. (Withdrawn) An antigen comprising a proteinaceous molecule or EMCR-CoV virus-specific functional fragment thereof according to claim 9.

11. (Withdrawn) An antibody specifically directed against an antigen according to claim 10.

12. (Previously Presented) The method according to claim 48 comprising reacting said viral isolate or a component thereof with an antibody directed against a proteinaceous molecule encoded by a nucleic acid of an EMCR-CoV virus.

13. (Cancelled)

14. (Cancelled)

15. (Withdrawn) A method for serologically diagnosing an EMCR-CoV infection of a mammal comprising determining in a sample of said mammal the presence of an antibody specifically directed against an EMCR-CoV virus or component thereof by reacting said sample with a proteinaceous molecule or fragment thereof according to claim 9.

16. (Withdrawn) A diagnostic kit for diagnosing an EMCR-CoV infection comprising a virus according claim 1.

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Withdrawn) A pharmaceutical composition comprising a virus according to claim 1.

21. (Withdrawn) A method for the treatment or prevention of an EMCR-CoV virus infection comprising providing an individual with a pharmaceutical composition according to claim 20.

22. (Withdrawn) A method for the treatment or prevention of atypical pneumonia comprising providing an individual with a pharmaceutical composition according to claim 20.
23. (Withdrawn) A viral replicase encoded by an RNA sequence comprising the indicated sequences, or homologues thereof as depicted in figure 1.
24. (Withdrawn) A viral spike protein comprising the indicated amino acid sequence as depicted in figure 1, or a homologue thereof.
25. (Withdrawn) A viral nuclear capsid protein encoded by an RNA sequence comprising the indicated sequence as depicted in figure 1 or a homologue thereof.
26. (Withdrawn) A viral nsp 3 or envelope protein encoded by an RNA sequence comprising the indicated sequence as depicted in figure 1, or a homologue thereof.
27. (Withdrawn) A nucleic acid sequence which comprises one or more of the sequences coding for separate viral proteins as depicted in figure 1 or a nucleic acid sequence which can hybridise with any of these sequences under stringent conditions.
28. (Withdrawn) A host cell comprising a vector according to claim 7.
29. (Withdrawn) A method for virologically diagnosing an EMCRC-CoV infection of a mammal comprising determining in a sample of said mammal the presence of a viral isolate

or component thereby by reacting said sample with an antibody according to claim 11.

30. (Withdrawn) A method for serologically diagnosing an EMCR-CoV infection of a mammal comprising determining in a sample of said mammal the presence of an antibody specifically directed against an EMCR-CoV virus or component thereof by reacting said sample with an antigen according to claim 10.

31. (Withdrawn) A diagnostic kit for diagnosing an EMCR-CoV infection comprising a nucleic acid according to claim 6.

32. (Withdrawn) A diagnostic kit for diagnosing an EMCR-CoV infection comprising a proteinaceous molecule or fragment thereof according to claim 9.

33. (Withdrawn) A diagnostic kit for diagnosing an EMCR-CoV infection comprising an antigen according to claim 10.

34. (Withdrawn) A diagnostic kit for diagnosing an EMCR-CoV infection comprising an antibody according to claim 11.

35. (Cancelled)

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Withdrawn) A pharmaceutical composition comprising a nucleic acid according to claim 6.

42. (Withdrawn) A pharmaceutical composition comprising a vector according to claim 7.

43. (Withdrawn) A pharmaceutical composition comprising a host cell according to claim 8.

44. (Withdrawn) A pharmaceutical composition comprising a proteinaceous molecule or fragment thereof according to claim 9.

45. (Withdrawn) A pharmaceutical composition comprising an antigen according to claim 10.

46. (Withdrawn) A pharmaceutical composition comprising an antibody according to claim 11.

47. (Currently Amended) A method for determining whether a viral isolate is analyzing a
sample comprising detecting the presence or absence of an EMCR-CoV virus in the sample
comprising detecting whether the viral isolate more closely phylogenetically corresponds to
SEQ ID NO: 1 or a functional fragment thereof than it does to a viral isolate from a different
coronavirus selected from the group consisting of porcine epidemic diarrhea virus (PEDV)),
human corona virus 229E (HCoV-229E), porcine respiratory coronavirus (PRCoV),
transmissible gastroenteritis virus (TGEV), canine coronavirus (CaCoV) and feline
coronavirus (FeCoV).

48. (Cancelled)

49. (Previously Presented) The method according to claim 47, wherein the detecting comprises (a) contacting the sample with a nucleic acid primer or probe that is specific for the EMCR-CoV virus or a functional fragment thereof under conditions that would cause a reaction if and only if an EMCR-CoV viral isolate were present, and (b) determining the presence or absence of the reaction.

50. (Previously Presented) The method according to claim 49, wherein the functional fragment comprises an open reading frame that encodes a protein of the EMCR-CoV virus selected from the group consisting of a viral replicase, nuclear capsid protein, matrix protein

and spike protein.

51. (Previously Presented) The method according to claim 49, wherein the nucleic acid primer or probe has at least 65% complementarity to RNA of the EMCR-CoV virus or the functional fragment thereof.

52. (Previously Presented) The method according to claim 49, wherein the nucleic acid primer or probe has at least 80% complementarity to RNA of the EMCR-CoV virus or the functional fragment thereof.

53. (Currently Amended) The method according to claim 47 48, wherein the detecting comprises reacting the sample with a nucleic acid probe under stringency conditions wherein the probe hybridizes with the EMCR-CoV virus or the functional fragment thereof without hybridizing to the different coronavirus.

54. (Previously Presented) The method according to claim 47 48, wherein the detecting comprises sequencing a nucleic acid in the sample, and determining whether a sequence of the sequenced nucleic acid is an EMCR-CoV virus sequence by ascertaining whether the sequence more closely phylogenetically corresponds to SEQ ID NO. 1 or the functional fragment thereof than it does to a sequence of the different coronavirus.

55. (Previously Presented) The method according to claim 47 48, wherein the sample is isolated from a mammal.

56. (Previously Presented) The method according to claim 55, wherein the method comprises diagnosing an EMCR-CoV infection of the mammal based on the identifying.

57. (Previously Presented) The method according to claim 55, wherein the mammal is a human with atypical pneumonia.